

Inside the

INTERNET

rocket science for the rest of us

Postcards from the digital edge

Here's your chance to send your Internet-savvy friends something more than a congratulatory E-mail message or sonnet of love. Among its many fun and visionary offerings, the Media Lab at the Massachusetts Institute of Technology (MIT) makes digital postcards available to World-Wide Web users. To send or view a digital postcard, all you need is access to a graphical Web browser such as Mosaic or Netscape.

If you want to send someone a digital postcard, you'll first need to know his or her E-mail address. In addition, you'll need to know whether your recipient has access to the Web via a graphical browser in order to view the postcard. Once you've established your chosen party's Web awareness, all you need to do is go to the MIT Postcard Store, select the card you want, and enter your message.

Shopping for a postcard

To begin, you'll need to go to The Electric Postcard page. To get there, use your Web browser's Open URL feature and enter the address

<http://postcards.www.media.mit.edu/Postcards/>

After a few seconds, you should arrive at the main entrance to the postcard page. Here's where you need to make a few decisions.

Kandinsky or trout?

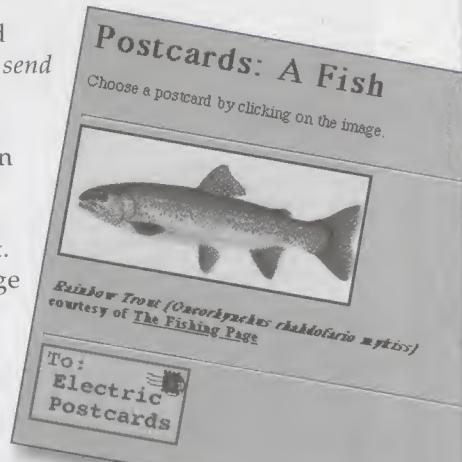
When you arrive at the postcard page, select the first option—*To send a postcard go to the Postcard Rack*. This will take you to a list of postcard picture options you can browse through. The variety of images range from Kandinsky's *Black and Violet* to rainbow trout. Chances are, you'll find an image to suit whatever postcard-sending occasions might arise.

Something to say

Once you select a picture that you want to use, click on the image. You'll soon arrive at a new screen where you can enter your electronic postcard's text. At this point, all you need to do is fill in the blanks and send your message.

Interestingly enough, if you know the Hypertext Markup Language (HTML), you can create formatted text in your document. If you're really adventurous, you can even include in your message any HTML format links to other documents or resources on the Internet.

If you include links and HTML formatting, you can even check your handiwork before you send the card. Simply use the



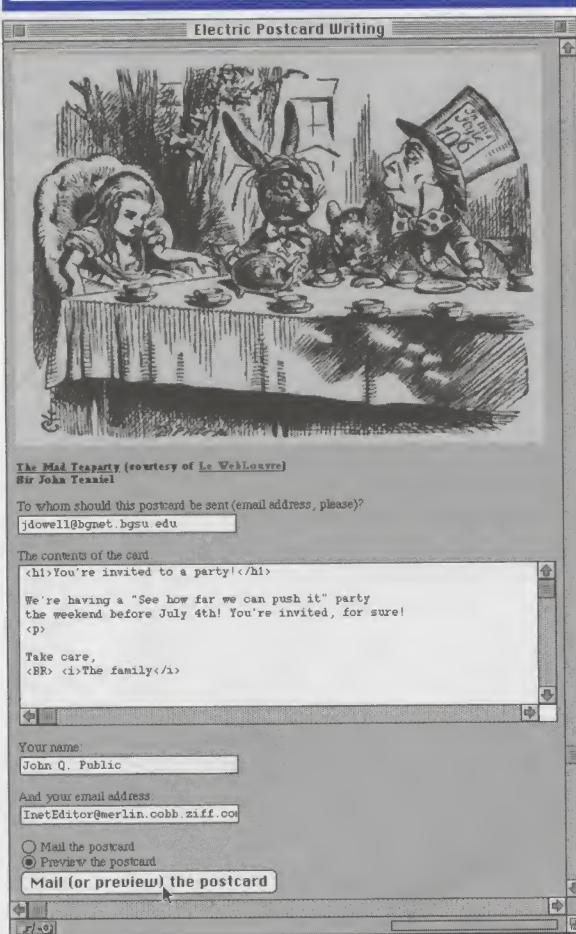
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Figure A



You can send a message as simple text, or you can add HTML formatting to enhance the appearance.

preview option, which is at the bottom of the Electric Postcard Writing screen. **Figure A** shows an example of a postcard in progress. You'll notice the postcard has some simple HTML tags. With HTML tags and the preview option, your electronic postcard can get your point across more effectively, and you can have more fun.

Parcel post

When your postcard is ready to send, make sure you fill in the address to which you want the postcard sent. Also, fill in the appropriate box with your own E-mail address. Finally, be sure you check the Mail the postcard radio button on the Electric Postcard Writing screen, then press the Mail (or preview) the postcard button. In a moment, the server will notify you that your message is on the way.

Bulk mail?

If you plan to send the message to more than one person, you can quite easily do so. Simply use your Web browser's Back feature, as shown in **Figure B**, to return you to the Electric Postcard Writing screen. There, you can simply replace the old E-mail address with a new one and send the postcard again.

Testing the procedure

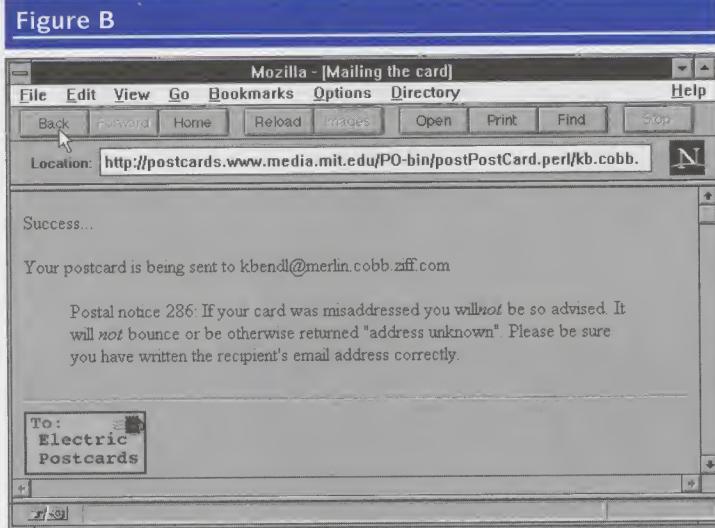
You'll want to test the postcard E-mail to see how the procedure works on both ends. To do so, simply enter your own E-mail address in the recipient field and send the postcard.

The receiving end

The recipient of your electronic postcard should receive notification within a few minutes that a postcard awaits. The E-mail message will look something similar to what's shown in **Figure C**. As you can see, the message includes the URL (uniform resource locator) and the claim number. The recipient need only copy and paste the URL into his or her Web browser to access the Web site.

To receive the postcard, use the URL listed in the note to go to the Electric Postcard page. When you get there, select the Pickup Window option. Then, enter the claim number found in the E-mail notification—in this instance, kbendl.200317, as shown in **Figure D**. In a few moments, the message will appear.

Figure B



To send your message to multiple recipients, use your Web browser's Back feature and enter a new address in the recipient field.

A hallmark idea?

Although the MIT Media Lab works to develop new ideas and strategies for cutting-edge technologies, some of the great ideas are simple indeed. It may just be a matter of time before a commercial greeting card company uses an idea such as the Postcard Store, making that page available as an even higher quality product than MIT's offering—and at a small price. *

Figure C

There is a postcard waiting for you in the Post(card) Office. You may claim it at the Pickup Window, which is located at

<http://postcards.www.media.mit.edu/Postcards/>

Your claim number is: kbendl.200317

Please have this number available when you claim your postcard.

Thank you,
The Postmaster

Messages left unclaimed after 3 weeks may be discarded.

To pickup a postcard, go to the Pickup Window.

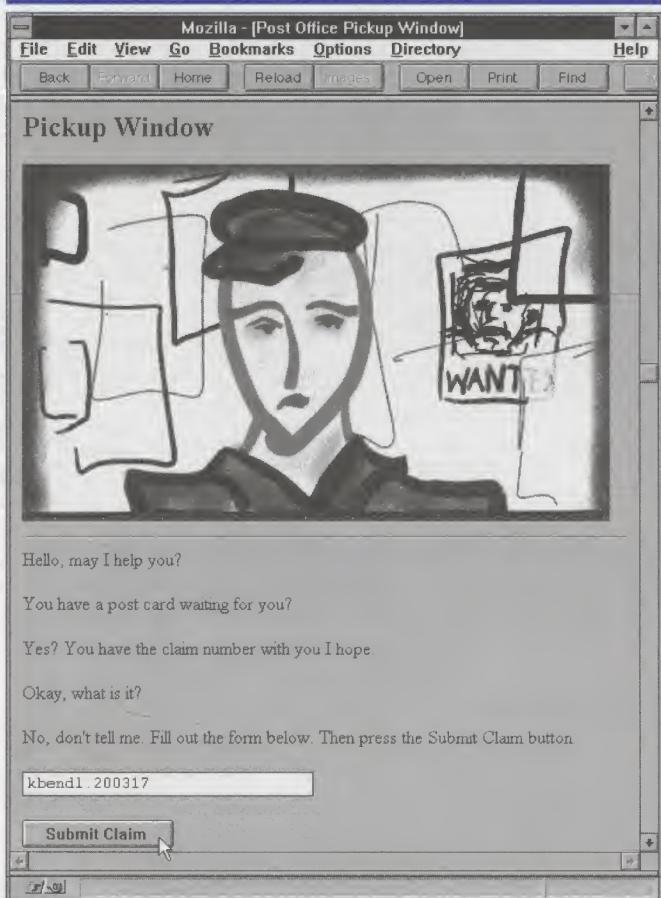
The recipient of your electronic postcard will receive a message similar to this a few minutes after you send the card.

A note from the editor

From time to time, a few of the filenames we reference in *Inside the Internet* change by the time you go to look for them. An example is the vanished address for InterNIC's Internet access provider list, which we mentioned in December's "Making the Internet Connection." Another example is the address for the Yahoo Web site, featured in the March issue. (Yahoo's new address is <http://www.yahoo.com/>.) In addition, some Web resources either change drastically or vanish altogether (for an example, see "Web E-mail Service Now Runs at a New Address," on page 4). Such occurrences are unfortunate and unavoidable circumstances of the great expansion into cyberspace.

As settlers did in the past two centuries in America's wild west, we're now blazing new trails into the wilds of the digital frontier. We are pioneers in a technology that promises to be an extension and an enhancement of our current realities. The Internet will very likely develop more quickly than did the US in its days of expansion.

Figure D



Enter your claim number at the Pickup Window to receive your electronic postcard.

As the Internet matures and evolves, it will become easier to use, simpler to navigate, and much more pervasive an influence in our daily lives. We can also expect that more of the Internet's features and sites will become more stable as it develops.

The constant changes to filenames and updates to program versions represent advancements that can often feel like growing pains. As the Internet evolves, *Inside the Internet* will be there to help you make it through the rough territory. We'll point out tools and resources that can help make your cyberspace jaunts productive and fun. So hang on and enjoy the ride.

If you have any questions, comments, or suggestions about the Internet and the articles that we print, please contact us. Our E-mail address is InetEditor@merlin.cobb.ziff.com.

Kurt Bendl
Editor-in-Chief, *Inside the Internet*

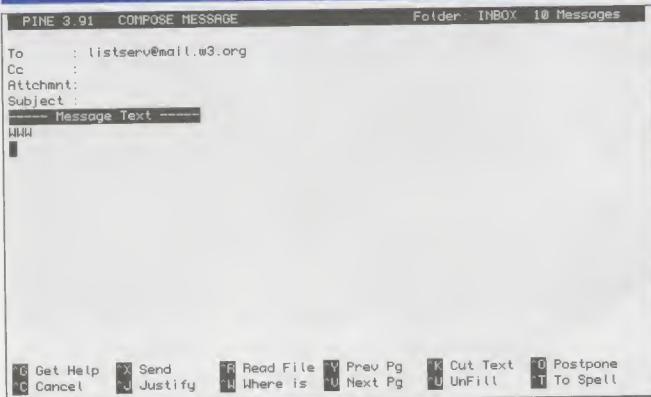


Web E-mail service now runs at a new address

In the February issue of *Inside the Internet*, the article "Accessing the World-Wide Web via E-mail" describes how people with only E-mail access to the Internet can reach documents on the Web and in Gopher-space. Not long after that issue went to print, the working address of the Web E-mail service changed. The new address is

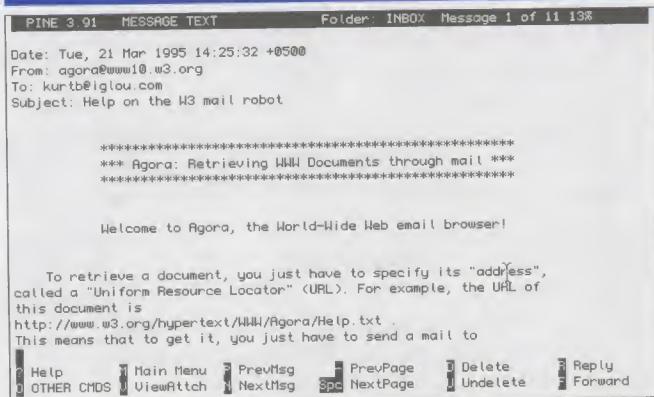
listserv@mail.w3.org

Figure A



To receive instructions on accessing the Web via E-mail, place WWW in the body of a message to listserv@mail.w3.org.

Figure B



The listserv will send a list of instructions to your E-mail account.

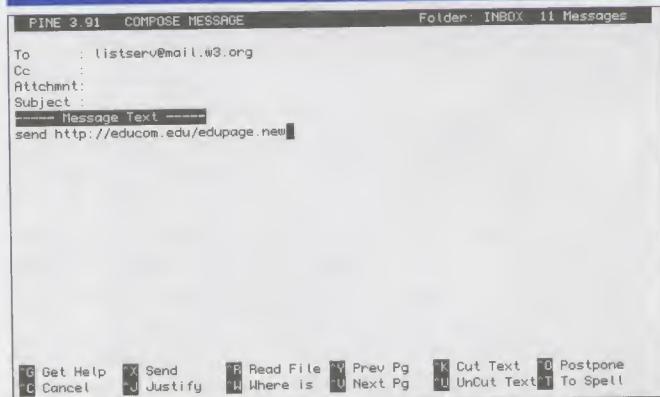
If you want more information on the Web E-mail service, you can access documentation through the Web with a browser such as Netscape, Mosaic, or Lynx or through your E-mail package. To get information via the Web, point your Web browser at the uniform resource locator (URL)

<http://www.w3.org/hypertext/WWW/MailRobot/send.html>

If you access the Web via a Web browser, you can use the Web E-mail mail server to get information about the service. To do so, send a message to listserv@mail.w3.org and place the command WWW in the body of the message, as shown in **Figure A**. After a few minutes, you should receive from the listserv a message—with a list of instructions similar to the one shown in **Figure B**.

As we mentioned in the February issue, you can use the listserv to access a particular document on the Web. To do so, place the *send* command followed by the document's URL in the body of an E-mail message. Unfortunately, the *send* command was omitted from one of the figures in that issue. The figure—and your request—should look something like the one shown in **Figure C**. *

Figure C



You can request any Web page from the listserv@mail.w3.org by using the send command followed by the URL.



Change is your password to security on the Internet

If you use an Internet access provider, you need a password to log into that provider before you can get onto the Internet. Your password is your first line of security. One way to protect yourself from the casual marauder is to change your password regularly. In this article, we'll show you how to change your password if you use a UNIX or VMS system, and we'll give you some tips on how to change your password on a few other systems.

Changing with the times

One of the best protections against someone accidentally running up the hours on your Internet account is to change your password often. Doing this can save you embarrassment if someone uses your Internet account to conduct less-than-savory activities, and it will save you money if you pay for your account by the hour.

It's easy to change your password if you have a shell account on a UNIX or VMS system. For example, to change your password on most UNIX systems, type the *passwd* command at your UNIX \$ prompt. As **Figure A** shows, your UNIX system then prompts you to enter your current password. (In the spirit of security, your UNIX server won't echo your password to the screen.) When you type it in correctly, the system will prompt you to enter a new password. Once again, that password isn't visible. Finally, the UNIX system will ask you to retype your new password. The entire process is summed up in Figure A.

VMS, a type of operating system found in many schools and businesses, allows you to change your password in a slightly different way. As you can see in **Figure B**, you can use the *set pass* command to create your new password.

Online services and passwords

Most online services give you the opportunity to change your password online. CompuServe maintains a customer

Figure A

```
$ passwd
passwd: Changing password for kurtb
Old password:
New password:
Re-enter new password:
```

It's easy to change your password on a UNIX system by using the passwd command.

service forum in which you can set your password. America Online lets you use the Keyword feature from the GoTo menu item. Then you type *password* as your keyword option to bring up the password editing screen.

Figure B

```
$ set pass
Old password:
New password:
Verification:
$
```

To change your password on a VMS system, use the set pass command.

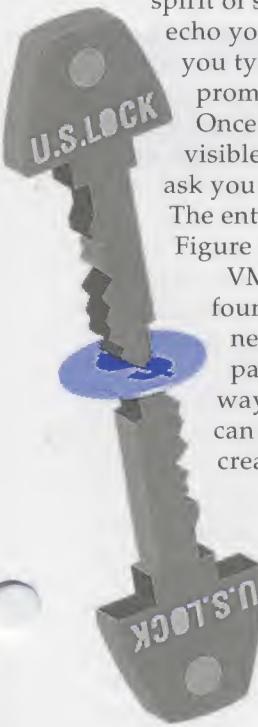
Oops!

One of the most embarrassing moments in your online career may be the time you forget your password. Don't worry, however—everyone tends to forget things at one time or another.

When you realize that you don't remember the latest rendition of your password, call your network administrator or your online provider's technical support number. These people handle requests such as this on a daily basis. The security of new passwords far outweighs any inconvenience.

Designer passwords

When you design your passwords, many systems require that you use at least six characters and that some of those characters be numbers. Here's your chance to get "cre8tive." As you get better at designing new passwords, you'll forget that you were once intimidated by Internet and online security



measures. If you can't come up with something new for a password, try to keep it as memorable as possible—without choosing one that's easy to guess. You should avoid birthdays, anniversaries, and initials. That type of information is the first target of electronic intruders with malicious intent.

Conclusion

It's a good idea to change your password frequently, and you should use the helpful guidelines we presented in this article when choosing your password. With our tips and techniques, you can help keep your information, name, and wallet safe. *

Copying files from your Internet shell account with zmodem

If you use a shell account to access the Internet, you may know that even if you download the latest copy of DOOM or the latest electronic tax forms, you still have to get those files from your host system to your desktop computer. You may also encounter several obstacles when you try to transfer files from a host computer to your own PC. For instance, a common obstacle is deciding what protocol to use to transfer files. Examples of common protocols are xmodem, ymodem, gmodem, and kermit.

One of the fastest methods to transfer files is with a popular protocol called *zmodem*. From a UNIX shell account, the zmodem protocol allows you to copy files from your home directory on the server to your desktop computer. In this article, we'll show you how to transfer files from a shell account to your PC and back. First, let's look at some differ-

ences in the common protocols and explain what makes zmodem a good choice when you transfer files.

The story behind zmodem

Although modems can move information between computers, both computers need to have a set of rules to exchange files properly. These rules, called file transfer protocols, allow your computer to break files up into chunks called packets, transmit them, and allow the receiving computer to reassemble the file.

Most file transfer protocols guarantee error-free transmissions between modems. However, even if two modems make a reliable connection, the data between each computer and its modem may not be as reliable. The zmodem protocol ensures that the information you transfer between your computer and the host is completely error free. Moreover, zmodem is fast, so you can reliably transfer files more quickly than with older, slower file transfer protocols such as ymodem, xmodem, or kermit.

The zmodem protocol also provides error checking and the ability to pick up where you left off if your phone line disconnects in the middle of a download. This kind of error recovery can save you time and money.

Double-duty downloads

When you download a file from the Internet with your shell account—either via FTP, Gopher, or an E-mail enclosure—that file usually ends up in your home directory on the service

Figure A

```
$ ls -a
.
.
.
.addressbook
.addressbook.lu
.agreement
.defmail
.defnews
.elm
.fingernail
.gopherrc
.gopherrc~
.homepage
.ircmtd
.ircrc
.menu
.mlynx_bookmarks.html
.msgsrc
$ ■
.
.news
.oldnews
.pine-debug1
.pine-debug2
.pine-debug3
.pinec
.plan
.pref-download
.pref-upload
.profile
.sh_history
.signature
.termtype
.tia
.tin
INET
Link-Info@cs.unr.edu
Mail
News
TIAmagic
bms.tuff
books.old
config.guess
home.html
kurtb
lynx-bookmarks.html
mail
mbox-aol.exe
shellhist
spryReadme.txt
tia
xmodem.log
```

Use the *ls -l* or *ls -a* command to get a listing of all the files in your home directory.

provider's computer. If that file is a binary file, you can then use zmodem to transfer it to your personal computer.

Before you make your move

Before you begin to transfer your file, use the UNIX command `ls -l` or `ls -a` to get a list of the files in your home directory, as shown in Figure A. You can use this information to check the exact spelling of the filename you want to transfer.

Figure B

The sz command followed by a filename will send files from a UNIX shell account to your personal computer.

Using zmodem to receive a file

You can also use the filename information you get from the *ls -l* or *ls -a* command to download the files you need from your home directory to your desktop computer. To receive a file from your UNIX shell account, type at your system prompt the command *sz* followed by the filename. When you press [Enter], your file should begin to download to your computer. Afterwards, your screen should look like the one shown in **Figure B**. It's important to note that most communications programs that support zmodem will detect when you download a file with that protocol. These programs will automatically receive the file. However, if your communications program doesn't support this automatic feature, you can simply set your software to receive the file with zmodem.

Sending files to your UNIX shell account

Occasionally, you may want to use your PC to send a file to another user. First, you'll want to copy that file into your home directory.

Removing files from your home directory

Once you've downloaded a file from your UNIX shell account and taken the opportunity to test it out, you'll want to delete the file from your shell account's home directory. This saves space on the server and can also save you money, since many Internet service providers charge you extra if you use too much disk storage space. To delete a file from your home directory, use the *rm* command followed by the complete filename you wish to delete. An example is

`rm filename.ext`

The `rm` in the command's name is short for *remove*. You can also use the `rm` command—in conjunction with wildcards—to remove more than one file at a time. For instance, if you want to remove both files `doom19s.zip` and `doom19s.txt`, you can use the command

rm doom*

In this case, the system will prompt you to make sure you want to delete each file that starts with the letters *doom*. The procedure will look something like what's shown in **Figure A**. The prompts are a result of a system default that sets file deletions to interactive mode.

If you use a UNIX system and want to learn more about how to use the *rm* command, type *man rm* at your system prompt. This will display electronic manual pages for the *rm* command.

Figure A

```
$ rm doom*
```

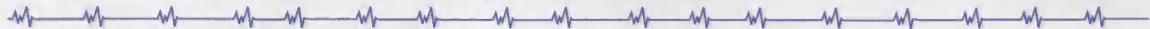
rm: remove doom19s.txt (y/n)? y
rm: remove doom19s.zip (y/n)? y
rm: remove doom19s.exe (y/n)? n

You can selectively remove a number of files with the rm command and wildcards.

You'd use the *rz* command, which tells your UNIX host to get ready to receive a file with the zmodem protocol. After you enter the command and press the [Enter] key, you can use your communications package to send via zmodem the file or files you want transferred to your home directory.

Conclusion

You'll use your UNIX shell account to collect all kinds of documents and programs from the vast resources available on the Internet. With the tips in this article, you can move those files quickly and easily with the zmodem protocol and the *sz* and *rz* commands. *



Internet Config

Internet Config could be the future of Macintosh configuration

Internet Config is a Macintosh utility designed to simplify the Internet for Mac users. Internet Config does this by way of a single application that lets you enter your Internet configuration just once. All applications that conform to the Internet Config standard will then be able to read the appropriate settings automatically.

People who use a Mac and MacTCP to connect to the Internet can benefit from Internet Config. As shown in

Figure A, you can save your personal settings such as your name, Finger plan file, and signature information

one configuration tool will prove to be a boon for Internet users and service providers alike.

With Internet Config, users have to reference only one location for most Internet configuration settings instead of updating every single Internet application's preferences. An Internet service provider, school, or network support professional can streamline the support and installation process by pre-configuring Internet Config's preferences file for Mac users who are new to the Internet.

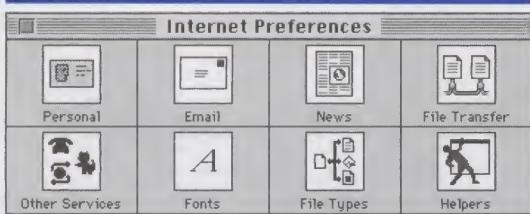
You might think a program with features such as Internet Config would be expensive. Instead, the authors of this utility chose to place it in the public domain. The user documentation that accompanies Internet Config states, "The Internet Configuration System was written by Quinn 'The Eskimo!' and Peter N. Lewis over a period of too many late nights and weekends. Certain important chunks of code were contributed by Marcus Jager." The program itself consists of three parts—the Internet Config application, the Internet Config Extension file, and the Internet Preferences file. A few popular Internet-aware applications such as John Norstad's NewsWatcher already support the Internet Config standard.

The Internet Config application creates the extension and preferences files. The application itself is all you need to get started. Let's look at where you can find this program.

Where to get Internet Config

You can find Internet Config at several Mac FTP sites and at [ftp.share.com](ftp://ftp.share.com) in the */pub/peterlewis/* directory. Look for the file *InternetConfig1.0.sit*. Developers can look in the */pub/internet-configuration/* directory for information about how to make applications

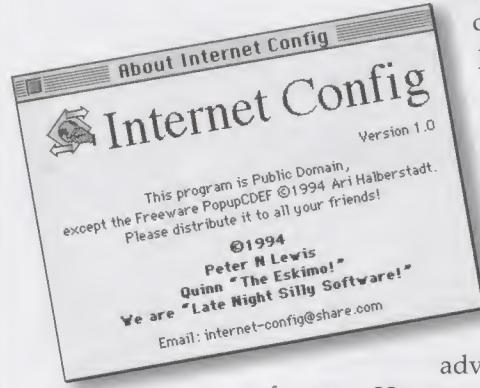
Figure A



Internet Config's Preferences screen allows you to input your Internet defaults and preferences once.

with this application. In addition, you can set up your E-mail address, your default mail (POP and SMTP), DNS, and UseNet news servers, and your default helper applications and graphic viewer programs. You can also configure several other kinds of information such as default Gopher sites and Web home page locations with Internet Config.

It will take some time for application developers to revise existing Internet applications that take advantage of Internet Config's features. However, quick adoption of this all-in-



work with Internet Config. Other sites include

<ftp://ftp.acns.nwu.edu/pub/newswatcher/helpers/internet-config-10.sea.hqx>

<ftp://archive.orst.edu//ftp.nws.orst.edu/pub/mirrors/archive.umich.edu/mac/util/comm/usenet/internetconfig1.0.sit.hqx>

Conclusion

One of the most tedious and repetitive tasks involved in Internet applications is configuring and reconfiguring all the different parts of an Internet connection. With Internet Config, you can greatly streamline the sometimes nightmarish task of configuring your Internet software. *

Convert oversized bookmark lists to manage your Web references

All Web browsers include a bookmark feature and most allow you to save the bookmark information to a document that you can edit and load into your Web browser at any time. By using that bookmark information, you can more easily manage your Internet resources. In this article, we'll show you an example of how you can harvest bookmark information with a Web browser and its bookmark feature. Then we'll give you tips on how to place those references in Web pages you can easily manage and distribute.

HTML marks the spot

With bookmarks, you can instantly revisit a Web page, Gopher site, or other Internet reference that you've discovered. With most Web browsers, it's extremely easy to add an Internet reference to a bookmark list. However, you may find you can amass a confounding number of these references in a very short period of time. Moreover, bookmarks don't usually give you many hints as to the nature of the item referenced, as evidenced in **Figure A**. This can add to the confusion.

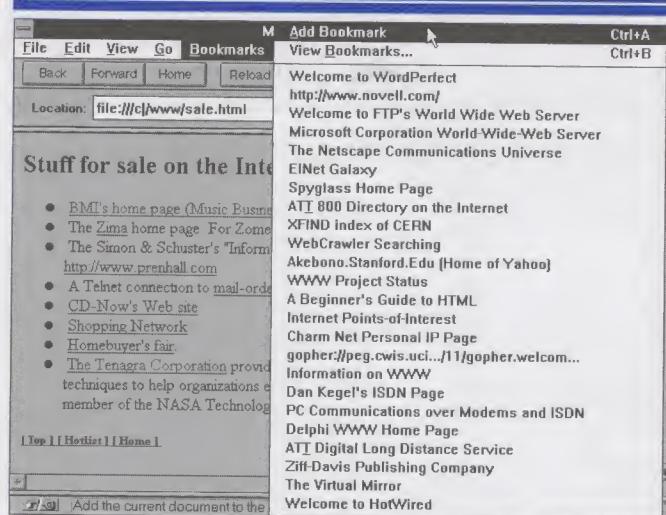
To make your references easier to handle, you can change your Web browser's bookmark information into something more useful. You can save those valuable references to your hard drive in Web document format—HTML (Hypertext Markup Language). Then, you can edit and add descriptions to your references with your favorite text editor or word processor. You can even arrange your finds by importance or subject matter and load them with your Web browser as you need them.

Hot lists to hot spots

First, you'll need to find your Web browser's bookmark or hotlist feature. We'll use this to collect information on some interesting Web sites. The bookmark feature can be found in different Web browser locations.

Netscape users can use the Add Bookmarks feature ([Ctrl]A for Windows and ⌘D for the Macintosh) found under the Bookmarks menu item. This will place a page's URL (uniform resource locator)—and the page's title—in the bookmarks file. NCSA Mosaic's Navigate menu contains an Add This Item selection that will do the same. SPRY's (soon to be CompuServe's) Internet In A Box Web browser includes a similar Add

Figure A



A huge collection of bookmark references can be confusing and make your Internet browsing more difficult.

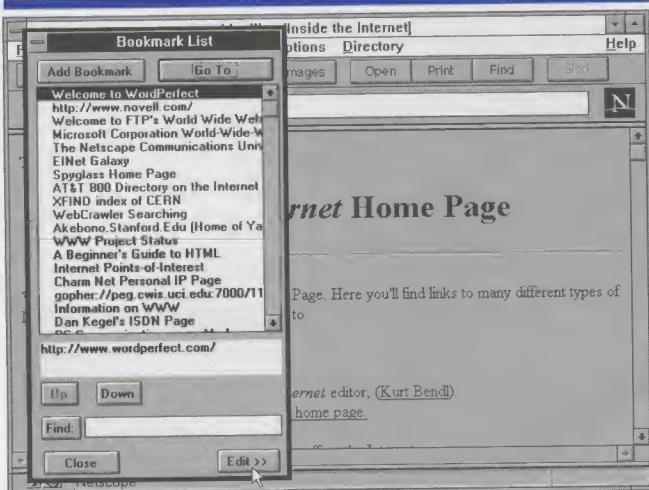
Document to Hotlist menu item under its Navigate menu.

If you haven't used your Web browser's hotlist feature yet, you're sure to appreciate how useful it can be. Simply cruise the Internet and use one of the Add Bookmark features to build your bookmark list.

Export your bookmarks as a Web page

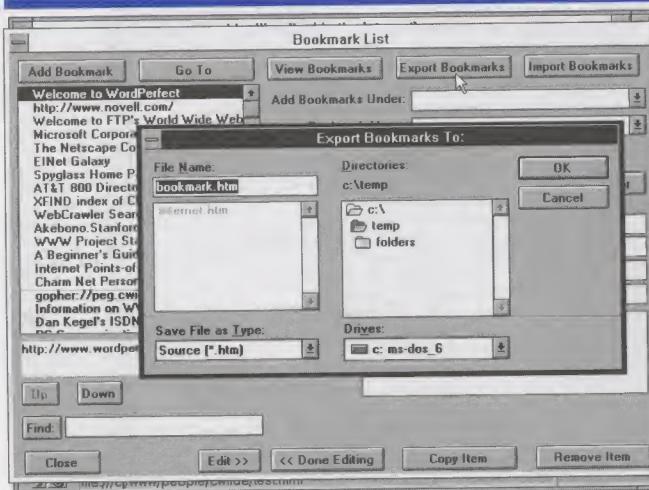
After you collect a few items in your bookmark list, you can export those references to a Web document. In this example, we'll export bookmarks from Netscape's Web browser. To

Figure B



You get more options from Netscape's Bookmarks List dialog box by using the Edit>> button.

Figure C



Use Netscape's Export Bookmarks feature to save your references as an HTML document.

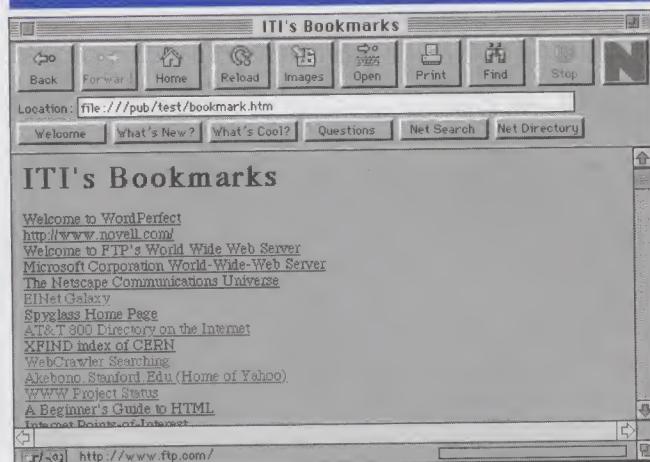
begin, select View Bookmarks... from Netscape's Bookmarks menu. Then, press the Edit>> button shown in **Figure B**. This expands the Bookmark List dialog box to include many more features. Select the Export Bookmarks button at the top right of the dialog box, as shown in **Figure C**, to save your bookmarks as an HTML document. In this example, we'll call the file **bookmarks.htm** (Mac users can call it **bookmarks.html**).

Looking marvelous

You can use your Web browser to open this saved list of bookmarks without making any modifications. It might look something like the document in **Figure D**. However, you'll edit your bookmark file so it looks good and is easy for you to use. You can open your bookmark file with a text editor. If you've seen the last few issues of *Inside the Internet*, you know you can easily create and edit Web documents with any word processor, or you can use an HTML editor to simplify the task. (See "Speed Your Web Page Development with an HTML Editor for Windows or Macintosh" in the March 1995 issue.)

To begin, you'll break this list into several parts—in this example, we divided our list into Cool Sites, Business and Marketing Sites, Reference Sites, and Commercial Sites. You'll arrange your references as an unordered (bulleted) list, create the headings, and then arrange the references to suit your layout. Since Netscape writes these references as a dictionary list and adds some unnecessary

Figure D



If you don't mind how it's arranged, you can load your exported bookmark file into your Web browser without modification.

information at the top of the list, you'll have to make some slight modifications. Also, Netscape adds some information to each bookmark reference—as shown in **Figure E**—that you don't need in a Web document. You'll remove that information as well to make your documents as lean as possible.

As you can see in **Figure F**, we've taken the existing bookmark information and created a new file called **hotlist.html**. In this file, we've split the references into rough categories. Also, we separated those categories with the horizontal rule tag—**<HR>**. Do the same with your bookmark references and save your work as a file called **hotlist.htm** (or **hotlist.html**).

The acid test

Now that you've arranged your references in a new Web document, it's time to load your work into your Web browser. From Netscape, select the Open File option from the File menu. Then, select the **hotlist.htm** file. Your document should look something similar to the one in **Figure G**. At this point, you can add hypertext markup tags to format your document.

Distributing your references

Sharing your resources is one of the best reasons to convert your bookmarks to an HTML file. With so many Web browsers available—Lynx, Mosaic, Netscape, and SPRY's AIR Mosaic, to name a few—the easiest way to distribute your Internet references is in HTML

format. That way, your friends can simply open your file to get to the sites you recorded. You can also post your HTML document to your local Web or FTP server, if the server is available. Then, someone can simply use a point-and-click hypertext reference in a Web document to load your hotlist file.

Conclusion

A Web browser's bookmark feature is easy to use. However, you can manage your Internet references more easily if you convert your bookmarks to an HTML document. You can also share those references more easily if you keep your references in an HTML document. *

Figure F

```

<HTML>
<HEAD><TITLE>The ITI Hotlist</TITLE></HEAD>
<BODY>

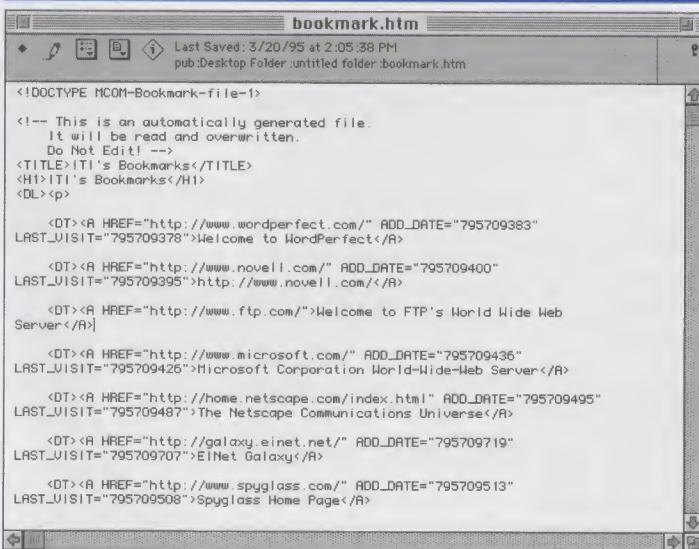
<H1>ITI's Hotlist</H1>
<H2>Cool Sites</H2>
<UL>
  <LI><A HREF="http://home.netscape.com/index.html">Netscape's Universe</A>
  <LI><A HREF="http://mirror.wua.com/mirror/">The Virtual Mirror</A>
  <LI><A HREF="http://www.elmail.co.uk/movie/pulp/contents.html">Pulp Fiction Home Page</A>
</UL>
<HR>

<H2>Business and Marketing Sites</H2>
<UL>
  <LI><A HREF="http://www.microsoft.com/">Microsoft Corporation's Web Server</A>
  <LI><A HREF="http://www.wordperfect.com/">WordPerfect's Web Server</A>
  <LI><A HREF="http://www.novell.com/">Novell's Web Server</A>
  <LI><A HREF="http://www.ftp.com/">FTP Software's Web Server</A>
  <LI><A HREF="http://organet.tenagra.com/Tenagra/tenagra.html">Tenagra Marketing Homepage</A>
</UL>
<HR>

```

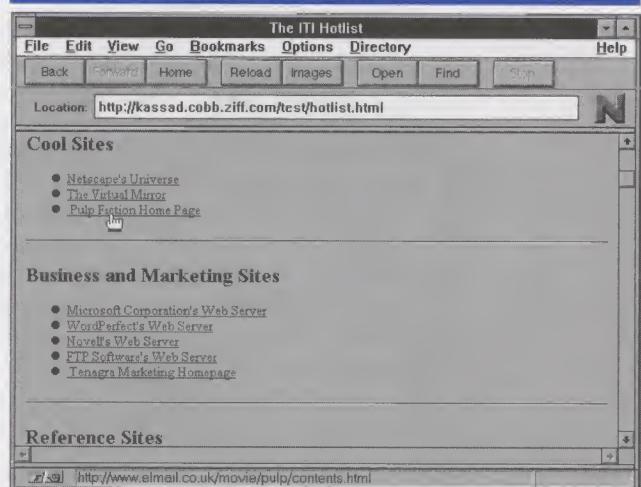
You can easily clean up your HTML bookmark references.

Figure E



Remove any unnecessary information from the bookmark file and rearrange the information to suit your needs.

Figure G



Load your new hotlist file into your Web browser to test your work.



Internet Q&A

Mailing lists by subject matter

Q How can someone get a detailed compilation of Internet mailing lists sorted according to the lists' subject matter?

A A few good references exist and are available via the Web, File Transfer Protocol (FTP), or E-mail. You can find Web references at

<http://www.NeoSoft.com:80/internet/paml/>
<http://www.clark.net/pub/listserv/listserv.html>
<http://www.lib.ncsu.edu/staff/morgan/listwebber.html>
<http://www.peachnet.edu/usenetfaqs.html>
<http://synap.neuro.sfc.keio.ac.jp/faq.html>

You can also find a huge list maintained at Massachusetts Institute of Technology's Usenet newsgroup site. You can get the information via FTP at

`ftp://rtfm.mit.edu/
 /pub/usenet-by-group/news.answers
 /mail/mailing-lists/`

The list is divided into 14 parts. You can fetch the files to your computer or personal workspace, then use your word processing program to search for the information you need.

If you have only E-mail access to the Internet, you can still get plenty of information—including the RTFM list. You can send a message to mail-server@rtfm.mit.edu and include the command

`get /pub/usenet-by-group/news.answers/mail/
 mailing-lists/*`

in the body of your message to receive those files via E-mail.

If you want to know more about list servers, you can get the document "Discussion Lists: Mail Server Commands." This is a fairly comprehensive guide to many essential commands for various types of list servers. To obtain a copy of this document, send a message to listserv@ubvm.cc.buffalo.edu with the command `get mailser cmd nettrain f=mail` in the body of the message.

Where's an on-ramp?

Q How can I find a local Internet access provider?

A Your best bet is to call the reference desk at your local library. Chances are, someone else has asked that question, and the library may already have an answer. Many library reference desks have a person on staff who's "Internet aware." If you know someone who has an Internet account, that person can help, too.

Directories via E-mail

Q In the August 1994 issue, you include the article "Getting Files from FTP Sites Using Simple E-mail." Since I can access the Internet only with E-mail, the technique works well for me. However, I sometimes run into problems when I don't know a file's name. How can I get a directory of filenames from an FTP server when I have only E-mail access?

A If you use the Princeton BITFTP server, you can receive a directory of filenames from an FTP server by using the `DIR` command. For example, if you're looking for a file on the [ftp.eff.org](ftp://ftp.eff.org) server, you can address a message to bitftp@pucc.princeton.edu and place the following in the body of your message:

```
FTP ftp.eff.org
USER anonymous
CD /pub/
DIR
QUIT
```

The BITFTP server will return the contents of the `/pub/` directory. The information will include some of the data shown in **Table A**. As you can see by the highlight, there's a directory called **Net_info**.

To delve further into the `/pub/` directory, you can send a nearly identical query to the BITFTP server. However, this time, add the `Net_info` directory to the `CD` line. Your new query would look like this:

```
FTP ftp.eff.org
USER anonymous
CD /pub/Net_info/
DIR
QUIT
```

You can continue to send `DIR` requests until you find the directory and file you need.

As with a regular FTP session, you need to use the file transfer type before you can get a file.

If the file you're looking for is a text file, you set the transfer mode to ASCII. In this case, your query would look something like this:

```
FTP ftp.eff.org
USER anonymous
CD /pub/Net_info/EFF_Net_Guide/
ASCII
GET netguide.eff
QUIT
```

If the file you want is binary data, such as a *.zip or *.exe file, you must set the file transfer type to BINARY.

For example, to send a message to the BITFTP server `bitftp@pucc.princeton.edu`, you can use a query something like this:

```
FTP ftp.eff.org
USER anonymous
CD /pub/Net_info/EFF_Net_Guide/
BINARY
GET netgd3_1.zip
QUIT
```

Before long, you'll receive a response message. However, you'll need to perform one more procedure before you can use a binary file received via the BITFTP server and E-mail, because BITFTP must *uuencode* a binary file before it sends the file to you through the mail.

It's u, it's u, it's uuencode

Since there's no clear-cut way to transfer binary data directly between E-mail packages (although a protocol called Multipurpose Internet Mail Extensions—or MIME—comes close), the BITFTP server will *uuencode* all the binary files you request. This *uuencoding* process translates binary data into ASCII text. This way, your data can easily transfer through Internet E-mail.

To convert an encoded file to a usable state, you'll need a

Table A

-rw-r--r--	1 mech	mech	795 Sep 15 22:33 .message
-rw-r--r--	1 mech	doc	2544 Aug 4 23:11 00-INDEX.pub
-rw-r--r--	1 mech	mech	991 Mar 7 21:43 00-links.html
drwxrwxr-x	4 mech	mech	1024 Mar 28 20:51 Alerts
drwxrwxr-x	16 kadie	caf	1024 Sep 24 21:50 CAF
drwxrwxr-x	10 mech	doc	1024 Mar 28 23:48 EFF
drwxrwxr-x	55 mech	mech	1536 Mar 10 20:20 Groups
drwxrwxr-x	10 mech	mech	512 Mar 1 16:34 Net_info
drwxrwxr-x	18 mech	mech	1024 Mar 3 17:54 Publications
-rw-r--r--	2 mech	mech	30334 Mar 6 23:00 README
-rw-r--r--	2 mech	mech	3364 Sep 15 20:34 README.WWW
-rw-r--r--	1 mech	mech	2945 Dec 13 22:57 README.changes
-rw-rw-r--	2 mech	mech	779 Sep 30 21:25 README.eff.org
-rw-rw-r--	3 mech	mech	31227 Mar 21 21:22 about.eff
lrwxrwxrwx	1 root	daemon	3 Oct 24 21:16 eff -> EFF

The DIR command will return a list of items in a directory when you query Princeton's BITFTP server.

program that will *uudecode* the file. Furthermore, the server will break large files into smaller, mailable pieces. This means you may also have to reassemble the uuencoded files by hand, possibly with a word processor or text editor, before you can *uudecode* the file.

You can see an example of a small uuencoded file in **Figure A**. If you transfer large files through the BITFTP server, you shouldn't leave E-mail header information or extra blank lines between pieces of your uuencoded file before you encode the information. As shown in the figure, a properly reassembled uuencoded file has no breaks between lines, and each line is the same number of characters wide. *

Figure A

```
BEGIN-----cut here-----CUT HERE-----PART 01
begin 644 PS.GIF
M1TE&.#=A9`R`8`^/[9I^S2H>0*F^G"E>ZCN;1HN:QB:2H>*?>"6
M<M>;MZY;]W+G=W+F]V!8=M76-EI3t9+-=3!F-0X)=(=!<<NYDL&PC;>GAZY>
M9;F=Z.5<2*4>Y%3Y,*=9>*:HM_=H=,%X9,%X5Y77Y89WF3V|E8&|E3F18
M-6>28!80U]76%QK(EMJ(5IJ(5EI(%A1(%9H'U5H'U1G'U)F'DQD'$Q&4$1#I#
M2C(DCFYJJJC8CJS!<8GF3SP18T?>M;1C[C"11;SK,H$G;JI,>^67<,"0E(
M=H#Z)):>BRN1QT+B."2NKZ001I>26G/R69/\L[9P(3A5F0#"UH6$C2E^>
M12=0/2P2HOK:!:+$@=J5"6!`2A0D#0@)>0402'S,G?:V8,(,67#E!@|[2SP
MKB'U<'<05!<EA':!"Y*@[586`H[F$,6SF+#+0S@]6"8"?%"T5^OM^Z;NA'
M&Q`69<+0*5<"Y?74A&%_)2#ALF"?T9@'_GJ]GY<HQV2TQ`21.CW^^"U#`2
MDJY2,3')$3ULCD"7<Y0=E14]XWU+139XX08,12]>6UBF--<M4#PMC5A
M"GO($)27<#S01<Z)K')Q0!*>RM4DM=I94KL,82;5'"G%N:9,;*IFCRE56
:II6NI`HL8_F06=>R'8[(I2YWR<M;"B(0`#L@
end
END-----cut here-----CUT HERE-----PART 01
```

A uuencoded file will have no breaks between lines and each line will be the same number of characters wide.



Roadside café

What's new?

There are a number of Internet sites that maintain a listing of new items on the Internet. Because many appear daily, you'll find it difficult to keep track of all the updates. The World-Wide Web, with its visual appeal and explosive growth, is particularly difficult to track. The Hypertext Markup Language (HTML) in **Table A** refers to links that help you keep track of those new sites.

Table A

```
<!-- new.html is an HTML reference to new site listings on the
     Internet -->
<HTML>
<HEAD>
<TITLE>What's New</TITLE>
</HEAD>
<BODY>

<CENTER><H2>What's New on the Web</H2>
</CENTER>
<HR SIZE=10>

<A HREF="http://www.infi.net/cool.html">Cool Site of the Day
   from InfiNet</A><BR>

<A HREF="http://www.directory.net/dir/whats-new.html">The
   Commercial Sites Index lists new commercial sites on the
   Web</A><BR>

<A HREF="http://www.ncsa.uiuc.edu/
SDG/Software/Mosaic/Docs/whats-new.html">
NCSA Mosaic's What's New page</A><BR>

<A HREF="http://home.netscape.com/escapes/
whats_new.html">Netscape's What's New page</A><BR>

<A HREF="http://www.yahoo.com/yahoo/
new.html">Yahoo's new listings</A><BR>

<HR SIZE=10>
</BODY>
</HTML>
```

You can enter this information into a new text document and open it with your Web browser.

A list of Internet service providers in the US

If you're looking for a new Internet service provider (ISP) or for an ISP for a friend or coworker in another state, the Internet Service Provider list maintained by Peggy Cheng is the reference for you. Ms. Cheng maintained the list for InterNIC before InterNIC's structure changed in March. You can get a copy of the ISP list via FTP or the Web:

FTP

<http://ftp.primus.com/pub/providers/isp-list>

Web

<http://www.primus.com/staff/peggy/provider.html>

If you have only E-mail access to the Internet, you can still get a copy of the ISP list. To do so, try out the Web E-mail tip described in "Web E-mail Service Now Runs at a New Address," on page 4.

Voyager's change of address

The address for the Voyager Web site referenced in the March edition of *Inside the Internet* has changed. The new address is

<http://www.voyagerco.com/>

The electronic gourmet

If you're looking for some fresh ideas for your latest culinary adventure, check out the electronic Gourmet Guide (eGG) published biweekly by 2 Way Systems. Issues of the E-mag include features such as articles about wine tasting and the Julia Child Awards. The E-mag also includes regular columns, cookbook reviews, and an online food trivia game. You can access the eGG from the Web. The uniform resource locator (URL) is

<http://www.2way.com/food/egg>

Business Gopher

EGOPHER provides Internet users with information and resources essential to starting, running, and growing businesses. EGOPHER—supported by St. Louis University's Jefferson Smurfit School of Business—is designed to supply current and relevant information to business teachers and students, consultants, economic development specialists, journalists, entrepreneurs, and business owners.

A huge specialized bibliographic database, EGOPHER maintains information from thousands of resources. In addition, EGOPHER covers many current topics such as total quality management, international trade, and economic development. The site links you with many other Gopher sites in business-related fields. You'll also find access to information for many traditional business topics such as accounting and finance.

To get to EGOPHER, point your Gopher client to

<gopher://sluava.slu.edu>

Once there, choose the **SLU General and Departmental Information** menu option, then **EGOPHER: The SLU Entrepreneurship Gopher**. If you use a Web browser such as Lynx or Mosaic, the URL is

[gopher://sluava.slu.edu/](http://sluava.slu.edu/)

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- "Add Pizzazz to Your Web Pages with Graphics"
- "Exploring OS/2's WebExplorer"
- "Speed Your Web Page Development with an HTML Editor for Windows or Macintosh"
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- "An Introduction to ISDN"
- "Prodigy's Internet Services"
- "Playing MPEG Movies on Your Computer"
- "URLs in *Inside the Internet*"
- "Working with Bookmarks in Gopherspace"
- "Common UNIX Gopherspace Commands"

In coming issues

- A modem primer
- E-mail tips
- Software reviews
- More HTML tags
- PGP, Pretty Good Privacy
- Winsock



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Inside the Internet Glossary

In *Inside the Internet*, we use several terms that may seem uncommon, since you may not hear many Internet terms in the "real" world. We've most likely discussed many of these terms in past issues. However, for everyone's benefit, we'll use a glossary to explain the terms, ideas, and other pieces of information that relate to the topics we discuss in this issue.

Bandwidth The volume of information (measured in cycles per second—hertz—or bits per second—bps) that a computer, medium, or transmission device such as an ISDN terminal adapter or modem can handle in a given period of time.

FTP (File Transfer Protocol) A protocol used to transfer files from one Internet-connected computer to another.

HTML (Hypertext Markup Language) A simple text-based generic markup language for representing the design and contents of documents that World-Wide Web browsers can display.

HTTP (Hypertext Transport Protocol) A fast, efficient information-retrieval protocol designed to distribute information quickly to as many users as possible. HTTP is the underlying protocol of the World-Wide Web.

PPP (Point-to-Point Protocol) A newer protocol that supports an Internet connection over a dial-up line. Similar to SLIP, PPP is better designed to handle multiple networking protocols.

SLIP (Serial Line Internet Protocol) A communications protocol that supports an Internet connection over a dial-up line.

URL (uniform resource locator) A pointer to a resource that's available through the Internet.

VMS (Virtual Memory System) DEC's proprietary operating system for its VAX series of minicomputers found in many schools and businesses. VAX is an abbreviation for Virtual Address Extension, and DEC is short for Digital Equipment Corporation.

World-Wide Web (Web, WWW, W3) A term given to a particular Internet access architecture. With the Web and a program called a Web browser, you can access many of the popular Internet features, such as Gopher, Veronica, and FTP. In addition, the Web allows you to view documents that include fully formatted text, graphics, and hypertext links to other Internet resources.

Zmodem A fast file-transfer protocol common to many communications packages. Other similar file transfer protocols include ymodem, ymodemg, and xmodem. Of these, zmodem is the fastest and most efficient.

Neo-news and net happenings

For those of you with only Usenet news or E-mail capability, InterNIC is sponsoring Net-Happenings—a constantly moving dialog of what's happening on the Internet (<comp.internet.net-happenings>). To subscribe to the digest version of Net-Happenings, just send an E-mail message to majordomo@is.internic.net and include in the body of your message the command *subscribe net-happenings-digest* followed by your E-mail address, as in *subscribe net-happenings-digestName@where.com*

The Washington Free Press Web site

A Seattle, Washington-based progressive news publication, *The Washington Free Press*, is now available on the Web. You can find an electronic version of the publication's back issues at

<http://www.cyberspace.com/~mrobesch/wfp.html>

The site includes complete texts of stories that run in the printed version. However, the electronic version doesn't include the cartoons, photos, and other graphics that appear in the printed version, although those may appear in the future. *The Washington Free Press* bills itself as old-style journalism that isn't afraid of losing sponsors by reporting the truth.

WARNING: Strong crypto!

The Cryptography, PGP, and Your Privacy Web page contains links to many of the Web's resources on cryptography as well as lots of documentation on the popular PGP (Pretty Good Privacy) encryption program for PCs, Macs, and UNIX machines. It also contains a page of links to many privacy-related Web resources.

<http://draco.centerline.com:8080/~franl/crypto.html>